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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,639	03/15/2004	Masaaki Konishi	2635-205	8070

23117 7590 06/22/2006

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ARLINGTON, VA 22203

EXAMINER
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KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/799,639		KONISHI, MASAOKI	
	<b>Examiner</b>		<b>Art Unit</b>	
	Ramesh Krishnamurthy		3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 24 is/are pending in the application.
- 4a) Of the above claim(s) 6 - 10, 14, 15 and 21 - 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 5, 11, 12 and 16 - 19 is/are rejected.
- 7) ☒ Claim(s) 13 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/15/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

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This office action is responsive to communications filed 04/12/2006.

**Claims 1 – 24 are pending.**

1. Applicant's election of Species A in the reply filed on 04/12/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

It is noted that claims 14 – 15 and 21 – 24 are NOT readable on the elected species and are readable on Species D that has not been elected. Claims 6 – 10, 14 – 15 and 21 – 24 remain withdrawn from further consideration.

**Claims 1 – 5, 11 – 13 and 16 – 20 are pending.**

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Schwegler et al. (US 2001/0022193).

Schwegler et al. discloses (Fig. 3, for example) a fuel pressure regulator for an internal combustion engine comprising: a housing (10) having a fuel inlet (communicating with (6)) and a fuel outlet (communicating with (8)), the fuel inlet being

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adapted to connect with a fuel delivery pipe through which fuel pumped out of a fuel tank is delivered to an internal combustion engine, the fuel outlet adapted to connect with the fuel tank; a seat member (14, 10) disposed within said housing, said seat member having a flow path formed therein, a seat opening, and a valve seat (22) formed around the seat opening, the flow path allowing the fuel to flow from the fuel inlet to the fuel outlet of said housing and leading to the seat opening; a valve member (20) disposed within said housing downstream of the valve seat of said seat member in a flow of the fuel through the flow path of said valve member, said valve member being adapted to abut on the valve seat to close the seat opening and to be moved upon application of pressure of the fuel flowing through the flow path of said seat member to open the seat opening for regulating the pressure of the fuel delivered to the internal combustion engine; and an urging member (24) working to urge said valve member into abutment with the valve seat to close the seat opening of said seat member and to hold the valve member within the housing.

4. Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Bueser et al. (US 6,681,798).

Bueser et al. discloses (Fig. 1, for example) a fuel pressure regulator for an internal combustion engine comprising: a housing (2, 32) having a fuel inlet (8) and a fuel outlet (4), the fuel inlet being adapted to connect with a fuel delivery pipe through which fuel pumped out of a fuel tank is delivered to an internal combustion engine, the fuel outlet adapted to connect with the fuel tank; a seat member (10) disposed within said housing, said seat member having a flow path formed therein, a seat opening, and

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a valve seat (12) formed around the seat opening, the flow path allowing the fuel to flow from the fuel inlet to the fuel outlet of said housing and leading to the seat opening; a valve member (18) disposed within said housing downstream of the valve seat of said seat member in a flow of the fuel through the flow path of said valve member, said valve member being adapted to abut on the valve seat to close the seat opening and to be moved upon application of pressure of the fuel flowing through the flow path of said seat member to open the seat opening for regulating the pressure of the fuel delivered to the internal combustion engine; and an urging member (22) in the form of a plate spring working to urge said valve member into abutment with the valve seat to close the seat opening of said seat member and to hold the valve member within the housing. The outer periphery (near (38)) of the spring (22) is retained by the housing (2, 32).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 5, 11, 12, 16, 17, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwegler et al. as applied to claims 1 and 4 above, and further in view of Schulz et al. (DE 198 14 744).

The disclosure of Schwegler et al. discloses the claimed invention with the exception of explicitly disclosing the urging member to be a plate spring.

Schulz et al. discloses a pressure control valve that comprises an urging member (12) in the form of a plate spring for the purpose of providing a compact structure for the valve.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided configured the urging member as a plate spring for the purpose of providing a compact structure for the valve, as recognized by Schulz et al.

It is noted that the plate spring in Schulz et al. (See Fig. 2) has openings (such as (12d)) that establishes a fluid communication between the seat opening and the fuel tank. Also the plate spring is held in place by a crimped portion of the housing. The outer portion of the plate spring in Schulz et al. is stationary as it is secured to the housing. An inner portion (12c) and an annular portion (12b) are also indicated along with inside and outside joint portion.

It is noted that the specific shapes of the spring, as being of a spiral or zigzag shape are design expedients over those features disclosed in the combination of Schwegler et al. and Schulz et al., in that they provide no new and/or unexpected solutions nor solve any stated problem.

7. Claims 13 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

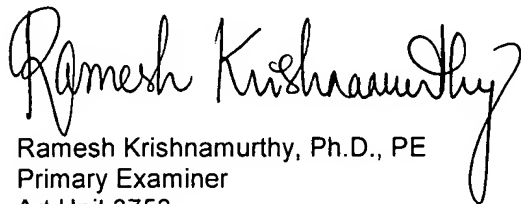
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached on (571) 272 – 4929. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Ramesh Krishnamurthy". The signature is fluid and cursive, with the first name "Ramesh" and last name "Krishnamurthy" clearly distinguishable.

Ramesh Krishnamurthy, Ph.D., PE  
Primary Examiner  
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